

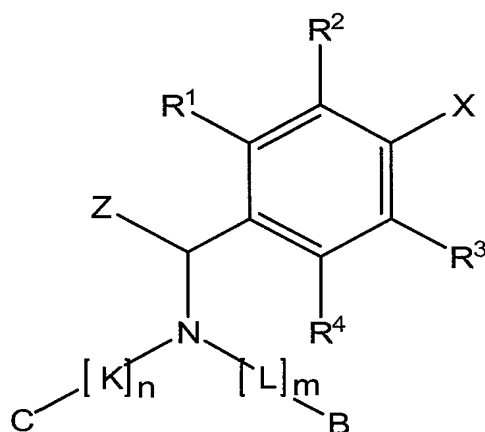
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-9. (Canceled)

10. (New) A building-block according to the following formula:



wherein

B is one or more amino acids or peptides or is a reactive group for the attachment of one or more amino acids or peptides or is a reactive group conjugated to one or more amino acids or peptides, wherein the reactive group is an amino group, an amino protecting group or a protected amino group;

C is one or more labels or a functionality for the attachment of one or more labels wherein the functionality is selected from NH₂, OH, SH, -NHNH₂, -ONH₂, CHO, or a protected form thereof; or, when K is absent, C is a protecting group directly connected to the central trivalent nitrogen atom;

K and L are independently from one another a linear or branched, substituted or unsubstituted alkyl chain with at least two C-atoms, whereby one or more non-neighboring C-atoms might be substituted by O, NH, N-(C₁-C₆)Alkyl, N-(C₅-C₁₅)Aryl, S, a carbonyl group, ester group or an amide group and/or neighbouring C-atoms might be connected via a double or triple bond;

X is a functionality for attachment to a solid support or a functionality comprising the solid support;

Z is H, C₁-C₈-alkyl, C₅-C₂₀ aryl or C₅-C₂₀ heteroaryl;

R¹, R², R³ and R⁴ independently from one another are H, C₁-C₈ alkyl, C₁-C₈ alkoxy, C₅-C₁₈ aryl or heteroaryl or C₅-C₁₈ aryloxy or heteroaryloxy;

m, n are 0 or 1, whereby m+n is at least 1.

11. (Currently Amended) The building block according to claim 10, wherein B is an amino protecting group or a protected amino group.

12. (New) The building block according to claim 11, wherein B is Mmt, Mtt, Alloc, ivDde, Dde, Fmoc, Bpoc, or an amino group protected by Mmt, Mtt, Alloc, ivDde, Dde, Fmoc, or Bpoc.

13. (New) The building block according to claim 10, wherein C is selected from the NH₂, OH, SH, -NHNH₂, -ONH₂, CHO, or a protected form thereof; or, when K is absent, C is a protecting group directly connected to the central trivalent nitrogen atom.

14. (New) The building block according to claim 13, wherein C is selected from the group consisting of STrt, SMmt, NBocNBoc₂, O-Boc₂, and CH(OCH₃)₂.

15. (New) The building block according to claim 10, wherein C is one or more labels selected from the group consisting of a fluorophore, a fluorophore/quench pair, a phosphorescent chemical residue, a luminescent chemical residue, a chemoluminescent chemical residue, a bioluminescent chemical residue, and biotin.

16. (New) The building block according to claim 10, wherein the one or more labels are selected from the group consisting of 2,4-dinitrophenyl, 5-dimethylaminonaphthalenesulfonyl, biotinyl, and (7-methoxycoumarin-4-yl)acetyl, and 2-(5-sulfonaphthal-1-yl-amino)ethyl.

17. (Currently Amended) The building block according to claim 10, wherein m+n is 1.

18. (Currently Amended) The building block according to claim 10, wherein K and L are independently from one another C₂--C₈-alkyl or -(O—CH₂-CH₂-)_q- with q = 1 to 20.

19. (Currently Amended) The building block according to claim 10, wherein X is a residue according to formula III



with D being CH₂, S, NH or O

R⁵ being C₁-C₁₀ alkyl

E being COOH, OH, SH, NCS, NCO, NH₂, Cl, Br, I or the solid support.

20. (New) The building block of claim 19, wherein R¹ is MeO, R², R³ are each H, Z is H, R⁴ is MeO or H, and X is O.

21. (New) A method for preparing C-terminally labeled peptides using the building block of claim 10, the method comprising

a) optionally loading the building block on a solid support, wherein C is selected from a protected form of NH₂, OH, SH, -NHNH₂, -ONH₂, or CHO; or, when K is absent, C is a protecting group directly connected to the central trivalent nitrogen atom;

b) stepwise conjugating one or more amino acids to B of the building block attached to the solid support;

c) removing the protecting group from C;

d) attaching the label to the reactive group deprotected in step c);

e) optionally deprotecting the amino protecting group of the N-terminal amino acid and attaching a label to said amino group; and

f) optionally cleaving the C-terminally labeled peptide from the solid support.

22. (New) The method according to claim 21, wherein B is an amino protecting group or a protected amino group.

23. (New) The method according to claim 21, wherein B is Mmt, Mtt, Alloc, ivDde, Dde, Fmoc, Bpoc, or an amino group protected by Mmt, Mtt, Alloc, ivDde, Dde, Fmoc, or Bpoc.

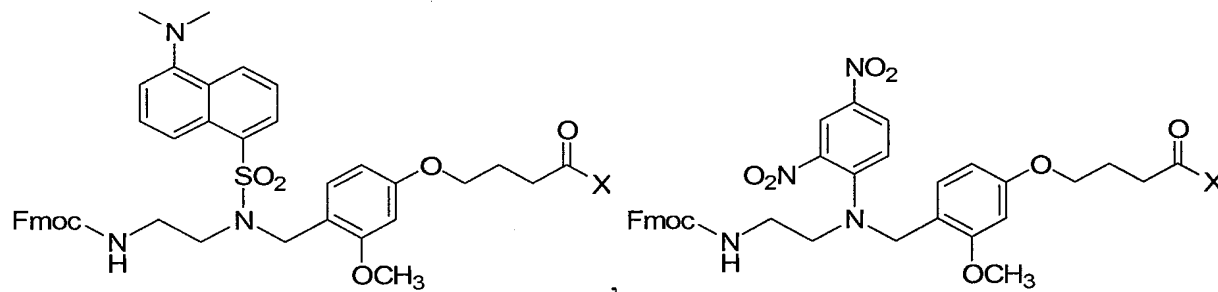
24. (New) The method according to claim 21, wherein C is one or more labels selected from the group consisting of a fluorophore, a fluorophore/quench pair, a phosphorescent chemical residue, a luminescent chemical residue, a chemoluminescent chemical residue, a bioluminescent chemical residue, and biotin.

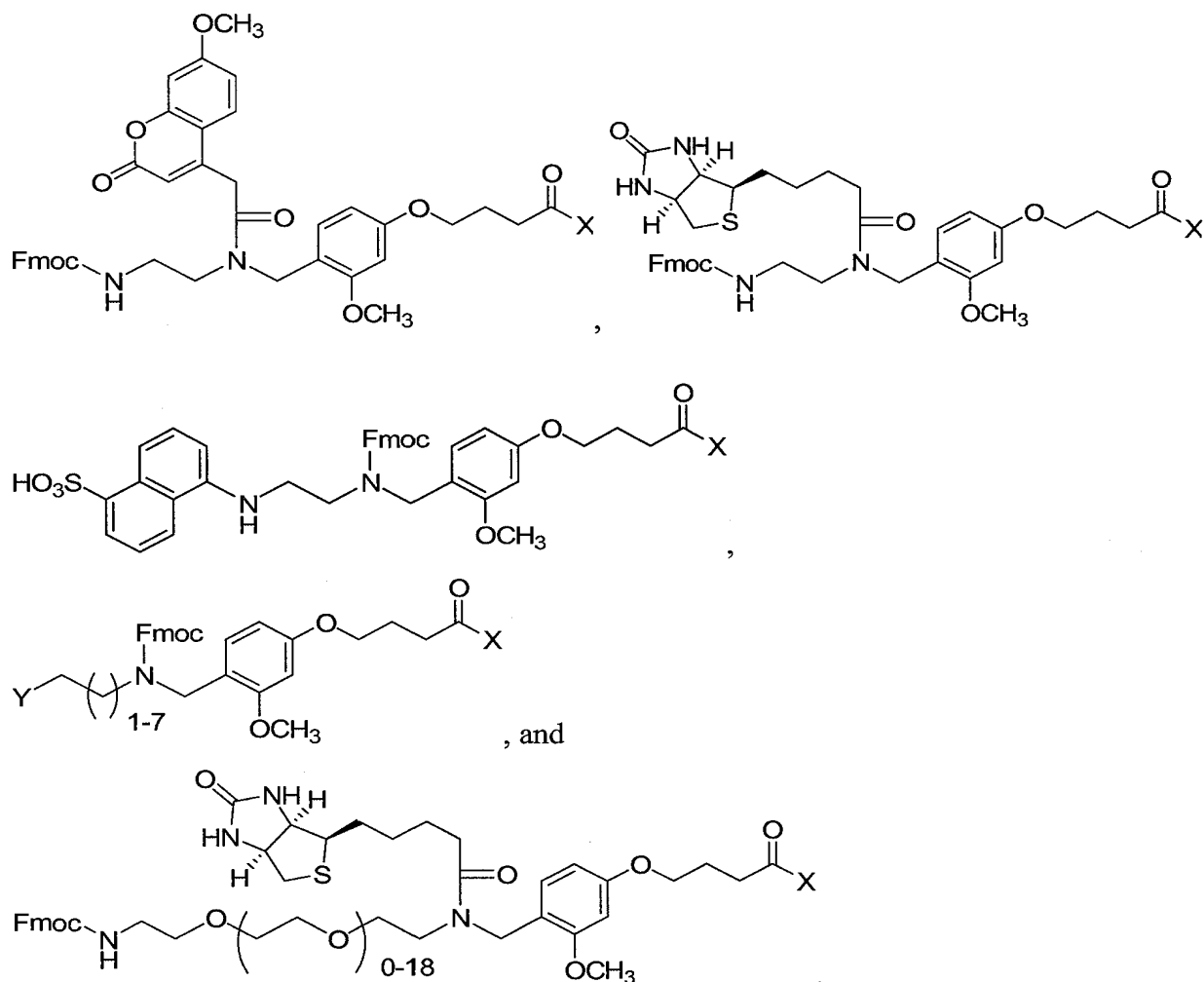
25. (New) The method according to claim 21, wherein the one or more labels are selected from the group consisting of 2,4-dinitrophenyl, 5-dimethylaminonaphthalenesulfonyl, biotiny, and (7-methoxycoumarin-4-yl)acetyl, and 2-(5-sulfonaphthal-1-yl-amino)ethyl.

26. (New) A method for preparing C-terminally labeled peptides using the building block of claim 10, the method comprising

- a) optionally loading the building block on a solid support, wherein C is one or more labels;
- b) stepwise conjugating one or more amino acids to functionality B
- c) optionally deprotecting the amino protecting group of the N-terminal amino acid and attaching a label to said amino group; and
- d) optionally cleaving the C-terminally labeled peptide from the solid support.

27. (New) A building block having a structure selected from the group consisting of





wherein

X is OH or an NH-functionalized insoluble or soluble solid support; and

Y is STrt, SMmt, NBocNBoc₂, ONBoc₂, CH(OCH₃)₂.

28. (New) The building block according to claim 27, wherein X is OH.

29. (New) The building block according to claim 27, wherein X is aminomethyl polystyrene resin.